Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

(For all sources except PSD and true minor sources)

Completed by: Kumar Pole, P.E.

GENERAL INFORMATION:

Name:	Westlake Monomers Corporation Westlake Chlor-Alkali and Olefins Corporation
Address:	2672 Industrial Parkway, Calvert City, Kentucky 42029
Date application received:	December 7, 1998
SIC/Source description:	2812, 2869
AFS(10-digit) Plant ID:	21-157-00039
EIS #:	072-2600-0039
Application log number:	F903
Permit number:	V-00-022

APPLICATION TYPE/PERMIT ACTIVITY:

[X] Initial issuance	[ ] General permit
[ ] Permit modification	[ ] Conditional major
__Administrative	[X] Title V
__Minor	[ ] Synthetic minor
__Significant	[ ] Operating
[ ] Permit renewal	[X] Construction/operating

COMPLIANCE SUMMARY:

[ ] Source is out of compliance [ ] Compliance schedule included

[X] Compliance certification signed

APPLICABLE REQUIREMENTS LIST:

[ ] NSR	[X]	NSPS	[X] SIP
[ ] PSD	[X]	NESHAPS	[ ] Other
[ ] Netted out of PSD/NSR	[X]	Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

[ ] Acid rain source
[X] Source subject to 112(r)
[ ] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[X] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[X] Certified by responsible official
[X] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

POLLUTANT	ACTUAL (TPY)	POTENTIAL (TPY)
PM/PM_{10}	208.821	208.821
SO_2	3.254	3.254
NOX	2037.548	2037.548
CO	323.898	323.898
VOC	161.778	161.778
LEAD	0.000	0.000
HAP $\geq$ 10 TPY	NONE	NONE
COMBINED HAPS	84.399	84.399

SOURCE PROCESS DESCRIPTION:

This permit covers two plants within the Westlake Group of Companies - the *CA&O plant* and the *Monomers plant,* combined these plants will be referred to as the *facility*. The facility has SIC codes of 2812, 2869. The facility is classified as a major source under 40 CFR Part 70 due to its emissions of carbon monoxide, nitrogen oxides, particulate matter (PM/PM_{10}), volatile organic compounds (VOC) and combined emissions of hazardous air pollutants (HAP).

The *Westlake CA&O* plant consists of two process units - Chlor-Alkali and Olefins and a utilities department (Energy & Environmental). The Chlor-Alkali portion processes brine to produce chlorine, sodium hydroxide, and hydrogen using an electrolytic cell. The Olefins or Ethylene portion of the plant processes propane (through thermal cracking) to produce ethylene and other co-products. The Energy & Environmental process unit provides utilities for the Westlake CA&O plant and manages the wastewater treatment plants.

The *Westlake Monomers* plant produces vinyl chloride monomer through the thermal decomposition of 1,2 dichloroethane (EDC) to form vinyl chloride (VCM) and hydrogen chloride (HCl). The resulting products then go through a series of distillation and recovery steps to recover the VCM. The EDC-VCM process consists of 8 main sections - EDC Thermal Cracking, VCM-HCl Distillation, Hydrogenation Reaction, EDC Oxychlorination Reaction, EDC Recovery, EDC High Temperature Reaction, EDC Distillation, Catoxid Reaction. Additionally, there are four secondary sections - Vent Gas Recovery, Vent Gas Incineration, HCl Absorption, and Vent Gas Scrubbing.